5931873

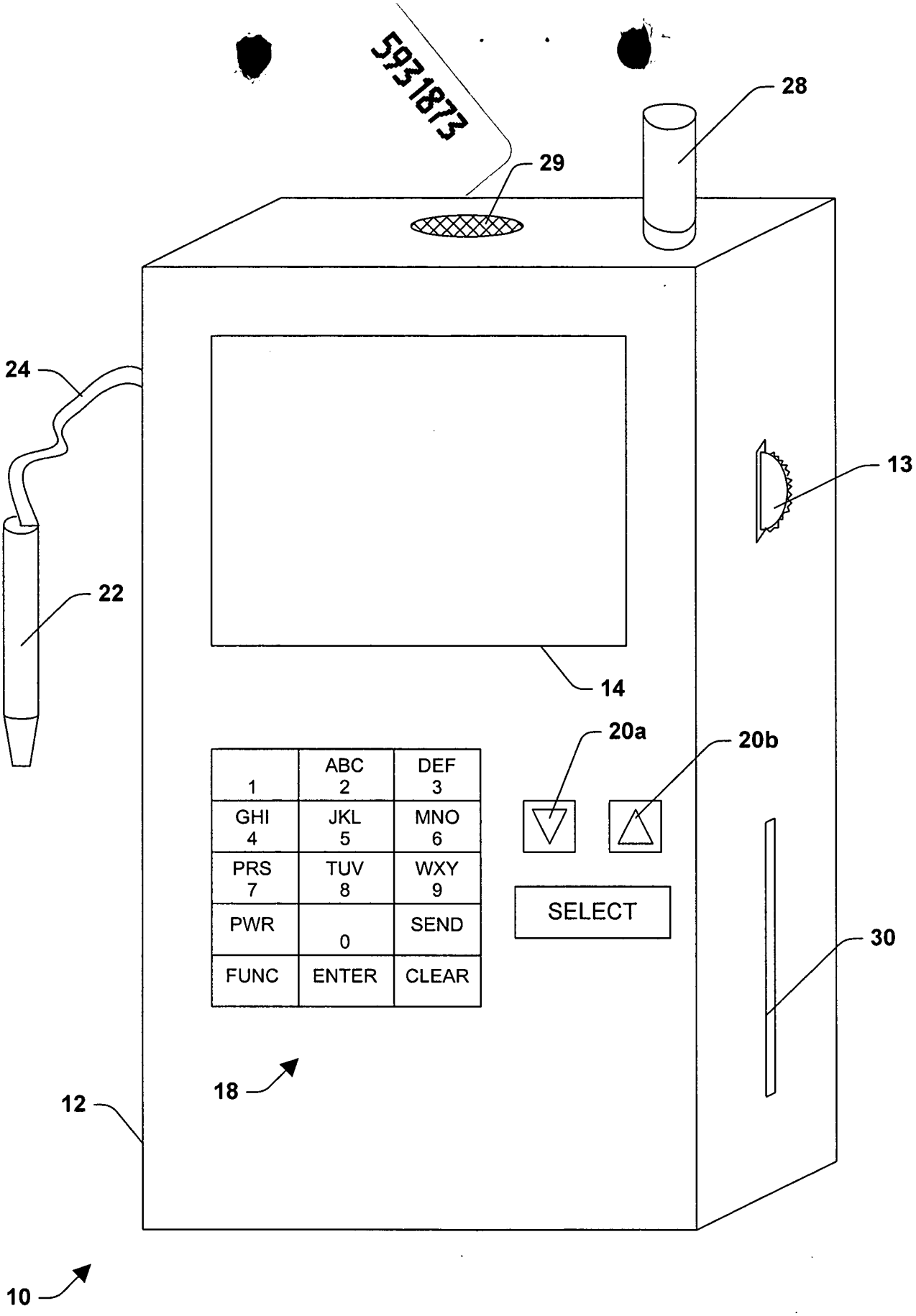

Fig. 1

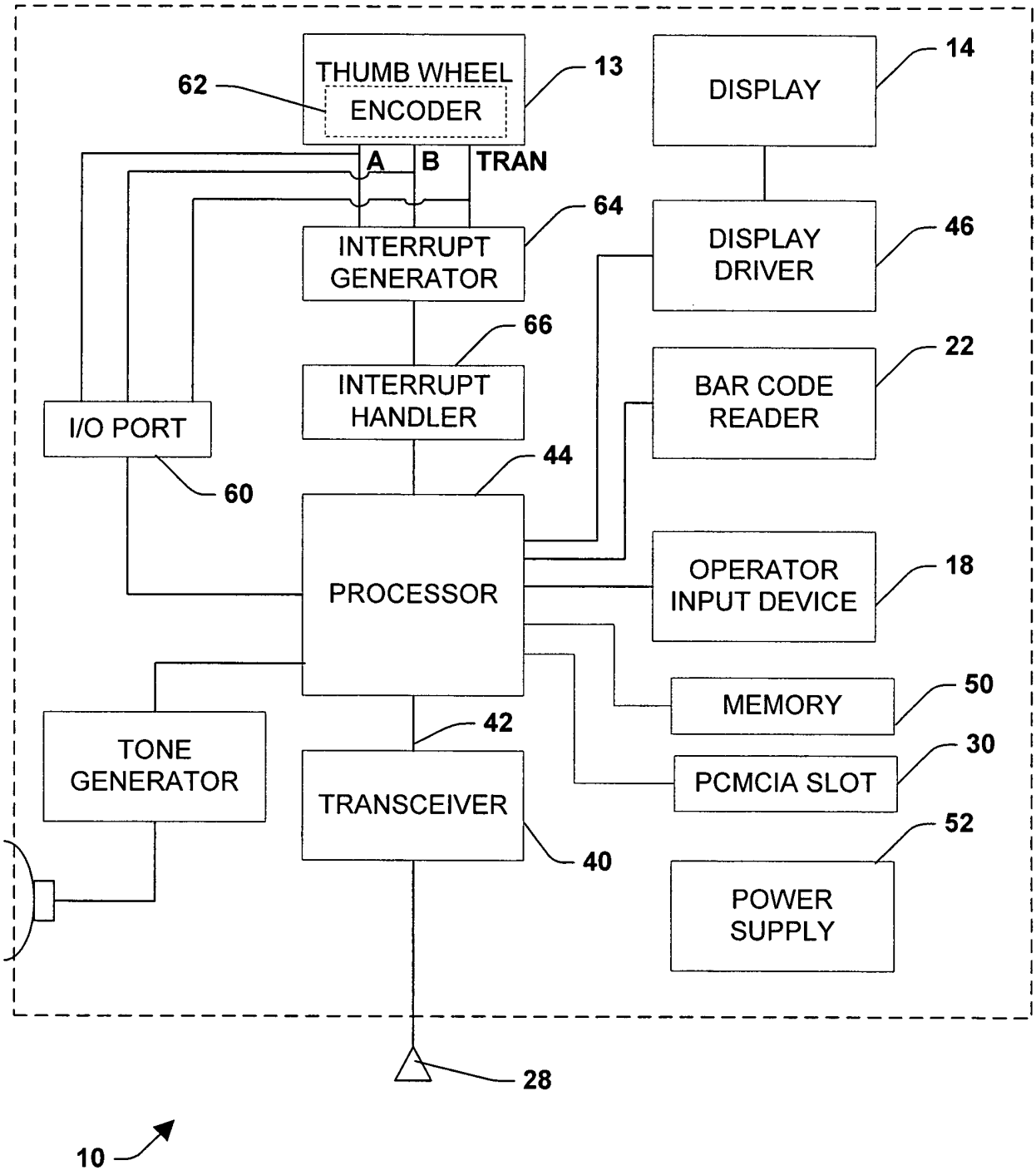
THUMB WHEEL
ENCODER
62
13
DISPLAY
14
A
B
TRAN
64
INTERRUPT GENERATOR
DISPLAY DRIVER
46
66
INTERRUPT HANDLER
22
BAR CODE READER
I/O PORT
60
44
PROCESSOR
OPERATOR INPUT DEVICE
18
MEMORY
50
42
TONE GENERATOR
TRANSCEIVER
30
PCMCIA SLOT
52
40
POWER SUPPLY
28
10

Fig. 2

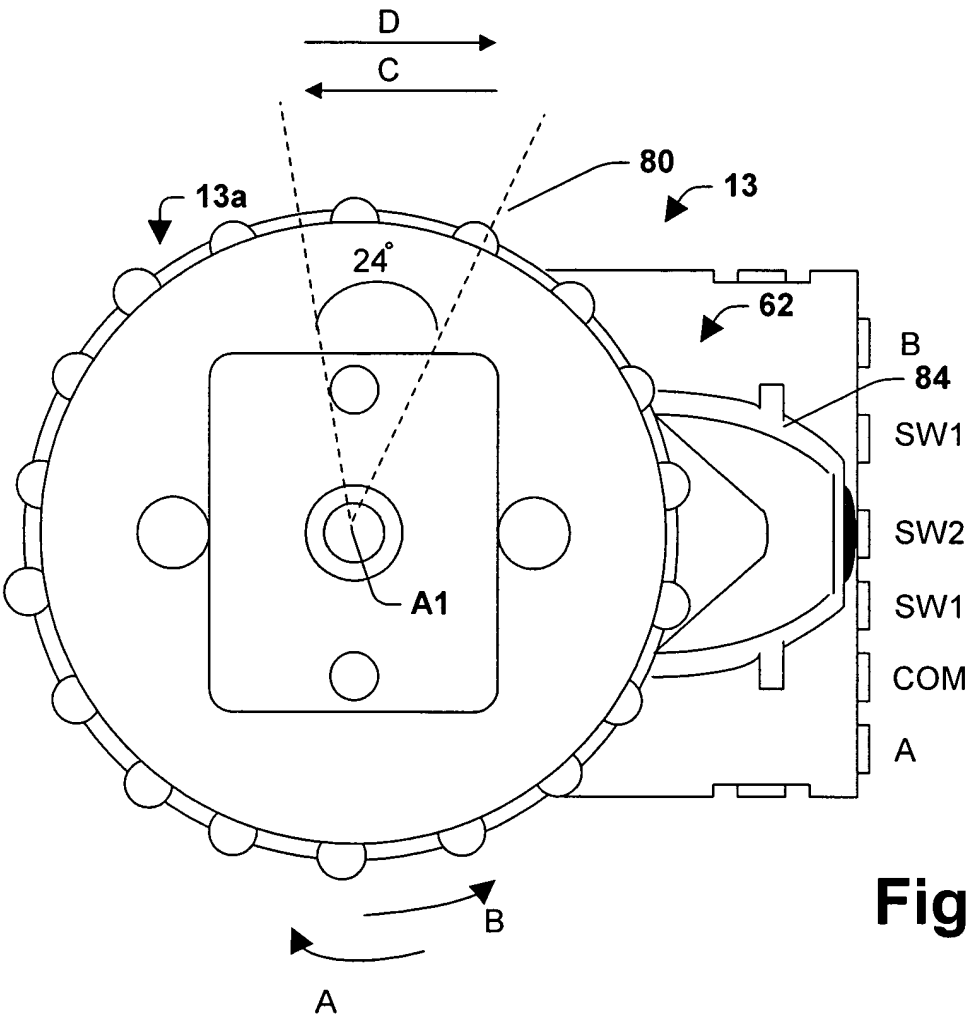
D
C
80
13
13a
24°
62
B
84
SW1
SW2
SW1
COM
A
A1
B
A

Fig. 3

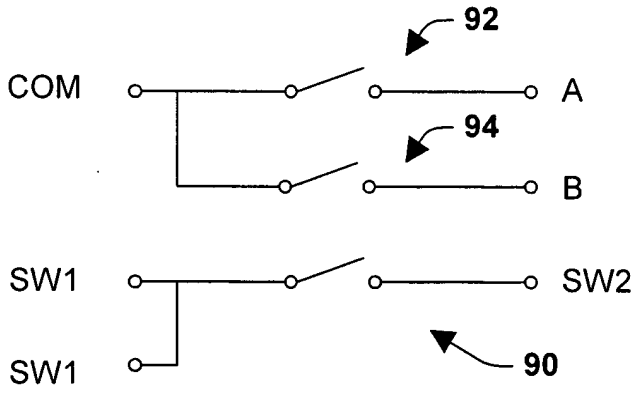
92
COM
A
94
B
SW1
SW2
SW1
90

Fig. 4

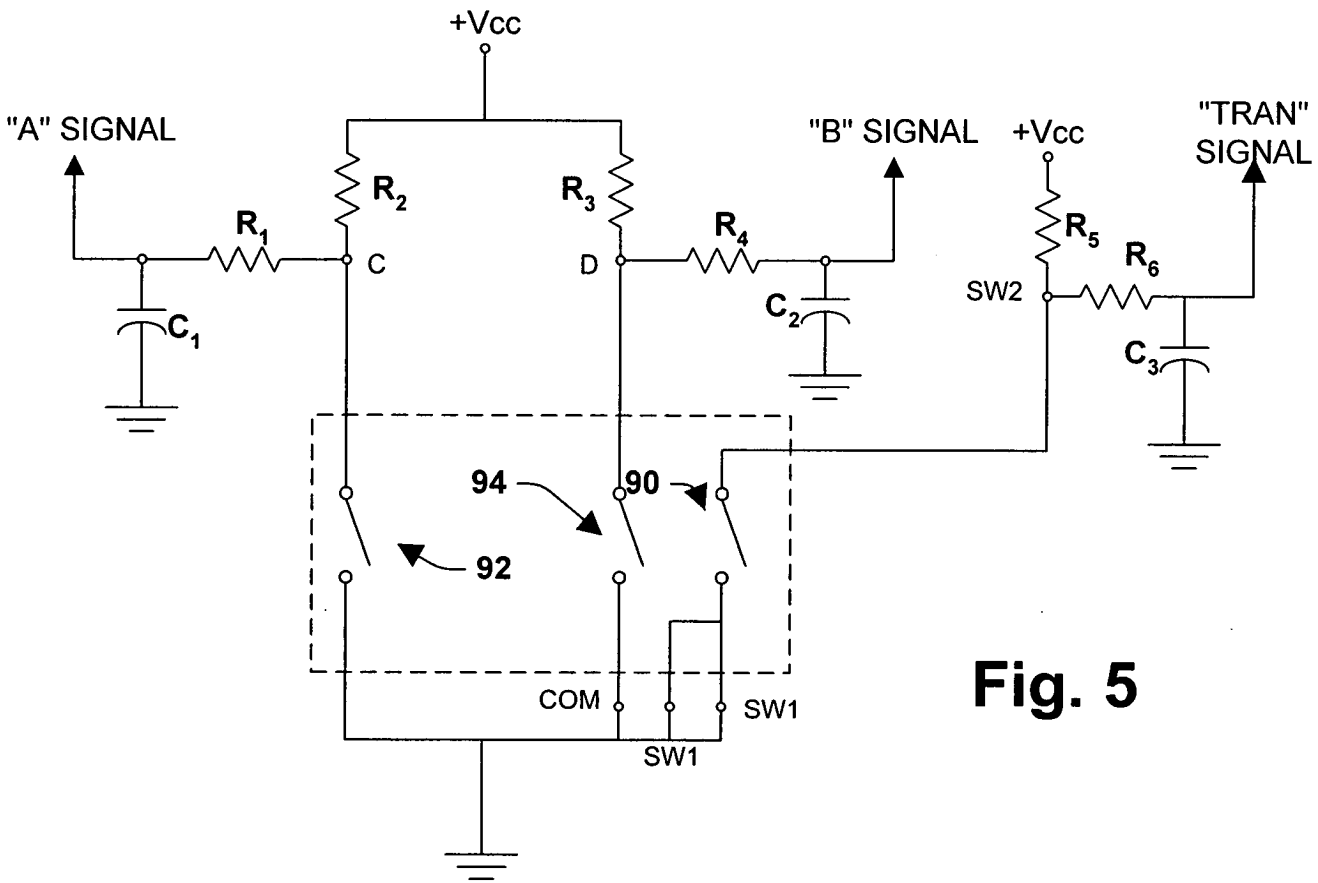
+Vcc
"A" SIGNAL
"B" SIGNAL
+Vcc
"TRAN"
SIGNAL
R1
R2
R3
R4
R5
R6
C1
C2
C3
C
D
SW2
94
90
92
COM
SW1
SW1

Fig. 5

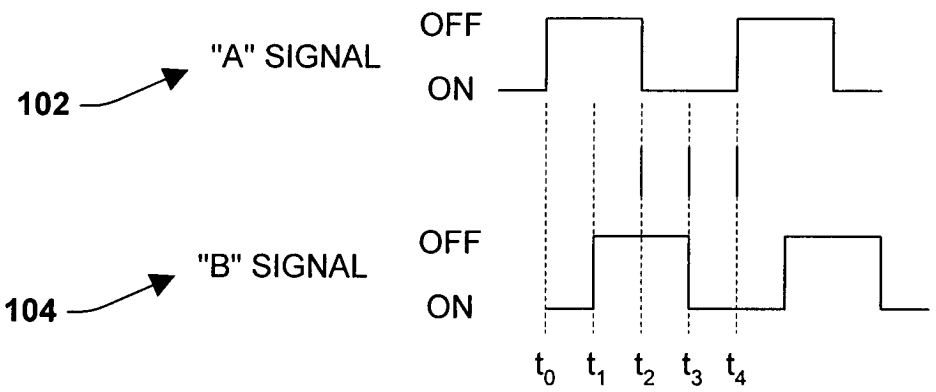
"A" SIGNAL
102
OFF
ON
"B" SIGNAL
104
OFF
ON
t0
t1
t2
t3
t4

Fig. 6

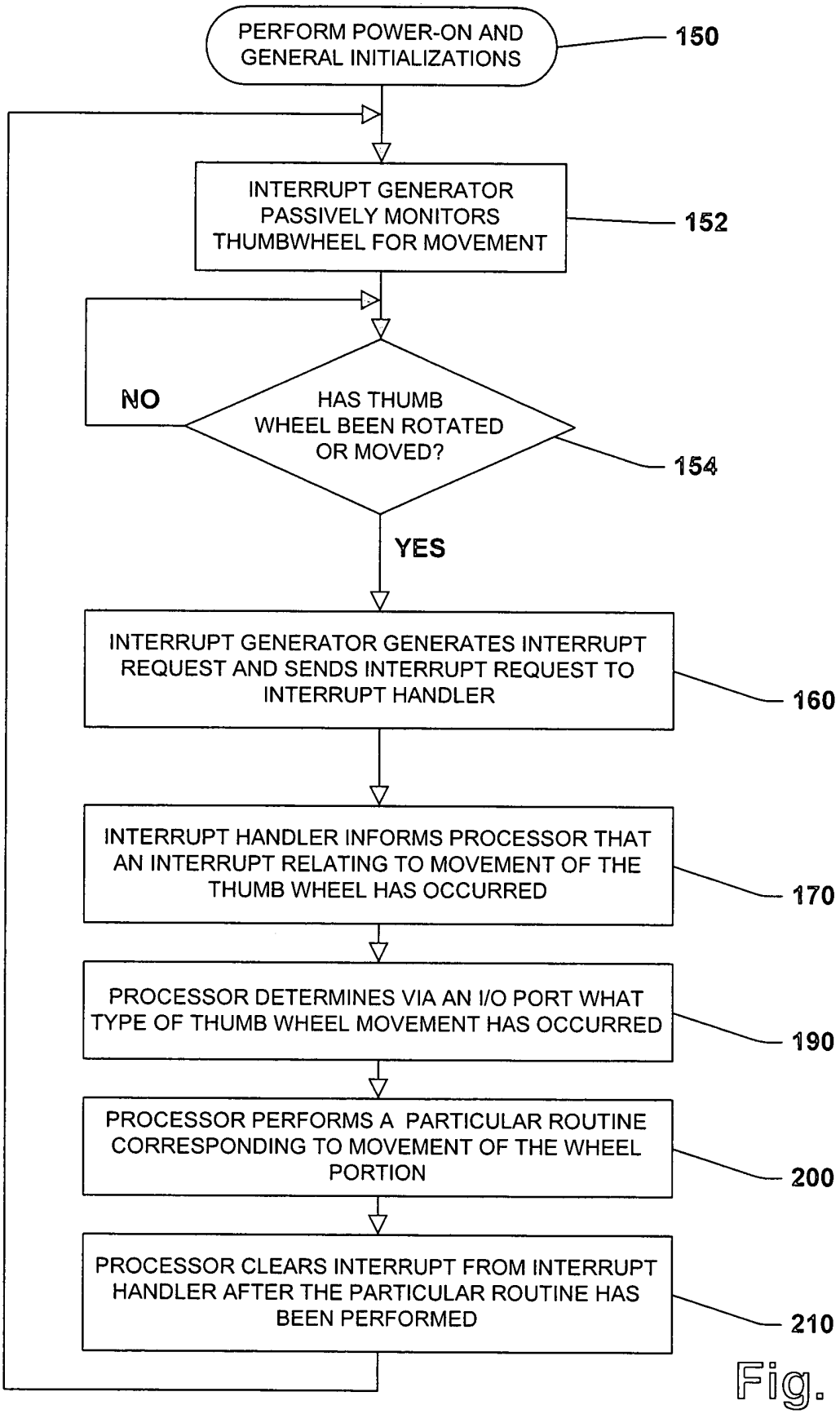
PERFORM POWER-ON AND GENERAL INITIALIZATIONS
150
INTERRUPT GENERATOR PASSIVELY MONITORS THUMBWHEEL FOR MOVEMENT
152
NO
HAS THUMB WHEEL BEEN ROTATED OR MOVED?
154
YES
INTERRUPT GENERATOR GENERATES INTERRUPT REQUEST AND SENDS INTERRUPT REQUEST TO INTERRUPT HANDLER
160
INTERRUPT HANDLER INFORMS PROCESSOR THAT AN INTERRUPT RELATING TO MOVEMENT OF THE THUMB WHEEL HAS OCCURRED
170
PROCESSOR DETERMINES VIA AN I/O PORT WHAT TYPE OF THUMB WHEEL MOVEMENT HAS OCCURRED
190
PROCESSOR PERFORMS A PARTICULAR ROUTINE CORRESPONDING TO MOVEMENT OF THE WHEEL PORTION
200
PROCESSOR CLEARS INTERRUPT FROM INTERRUPT HANDLER AFTER THE PARTICULAR ROUTINE HAS BEEN PERFORMED
210

Fig. 7

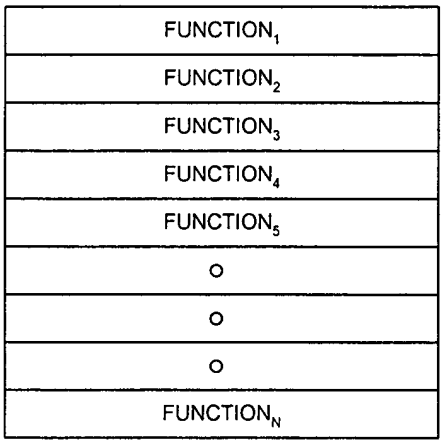

Fig. 8A

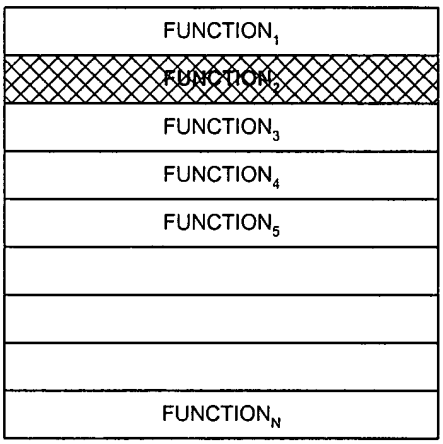

Fig. 8B

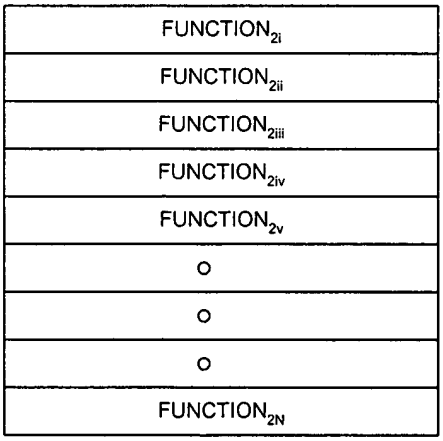

Fig. 8C

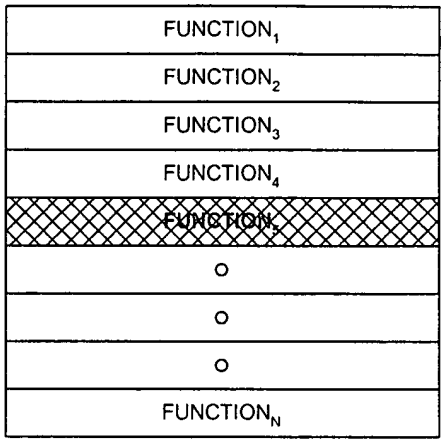

Fig. 8D

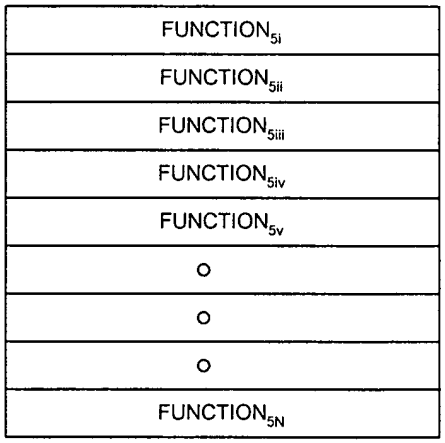

Fig. 8E